



ELECTRICAL
& COMPUTER
ENGINEERING

ECE-595 Network Softwarization

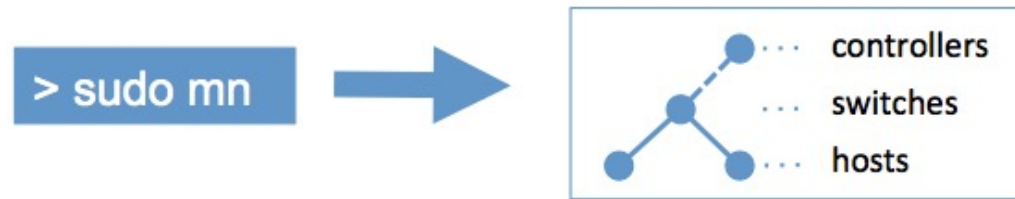
PROF. FABRIZIO GRANELLI (FABRIZIO.GRANELLI@UNITN.IT)

PROF. MICHAEL DEVETSIKIOTIS (MDEVETS@UNM.EDU)

Introduction to Mininet

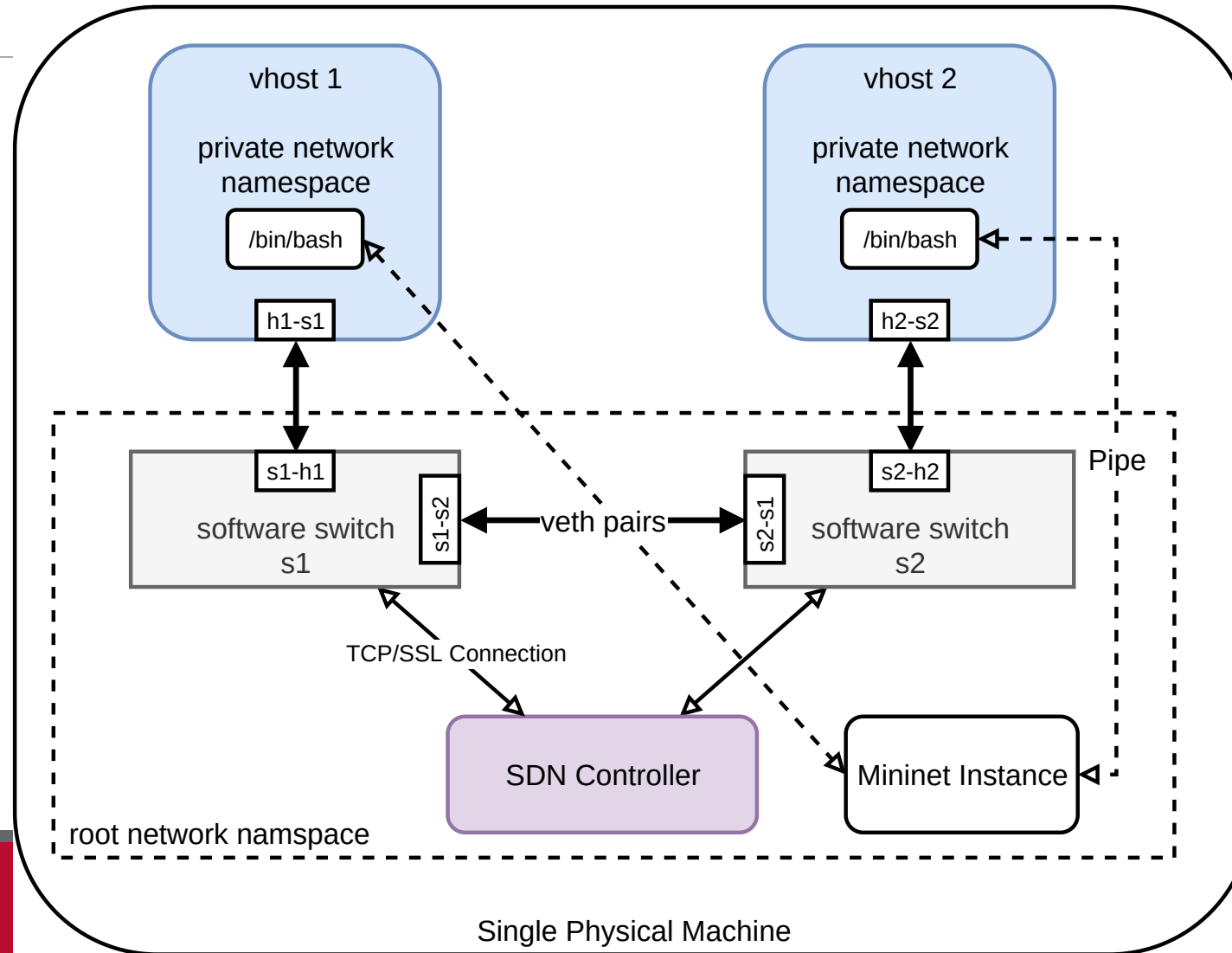
Mininet (mininet.org)

- A network emulator which creates realistic virtual network
- Runs real kernel, switch and application code on a single machine

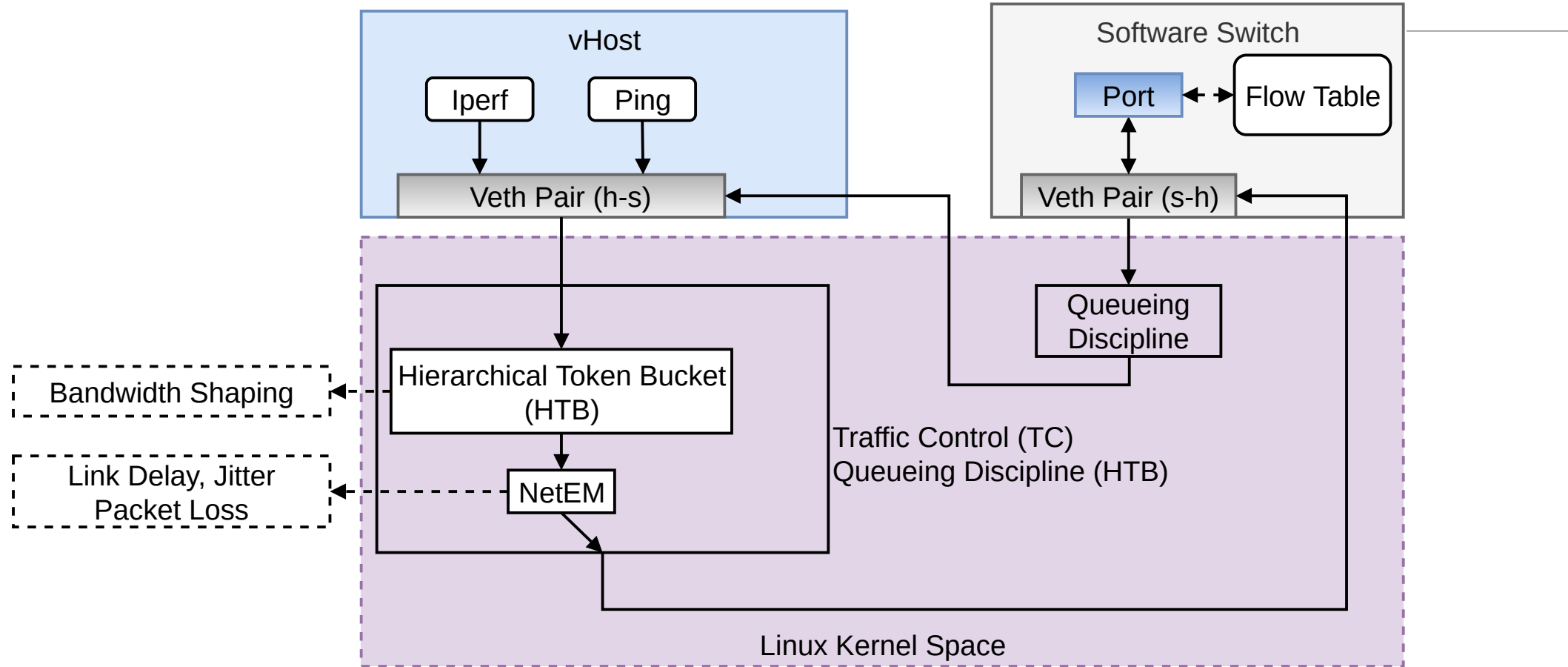


- Provides both Command Line Interface (CLI) and Application Programming Interface (API)
 - CLI: interactive commanding
 - API: automation
- Abstraction
 - Host: emulated as an OS level process
 - Switch: emulated by using software-based switch
 - E.g., Open vSwitch, SoftSwitch

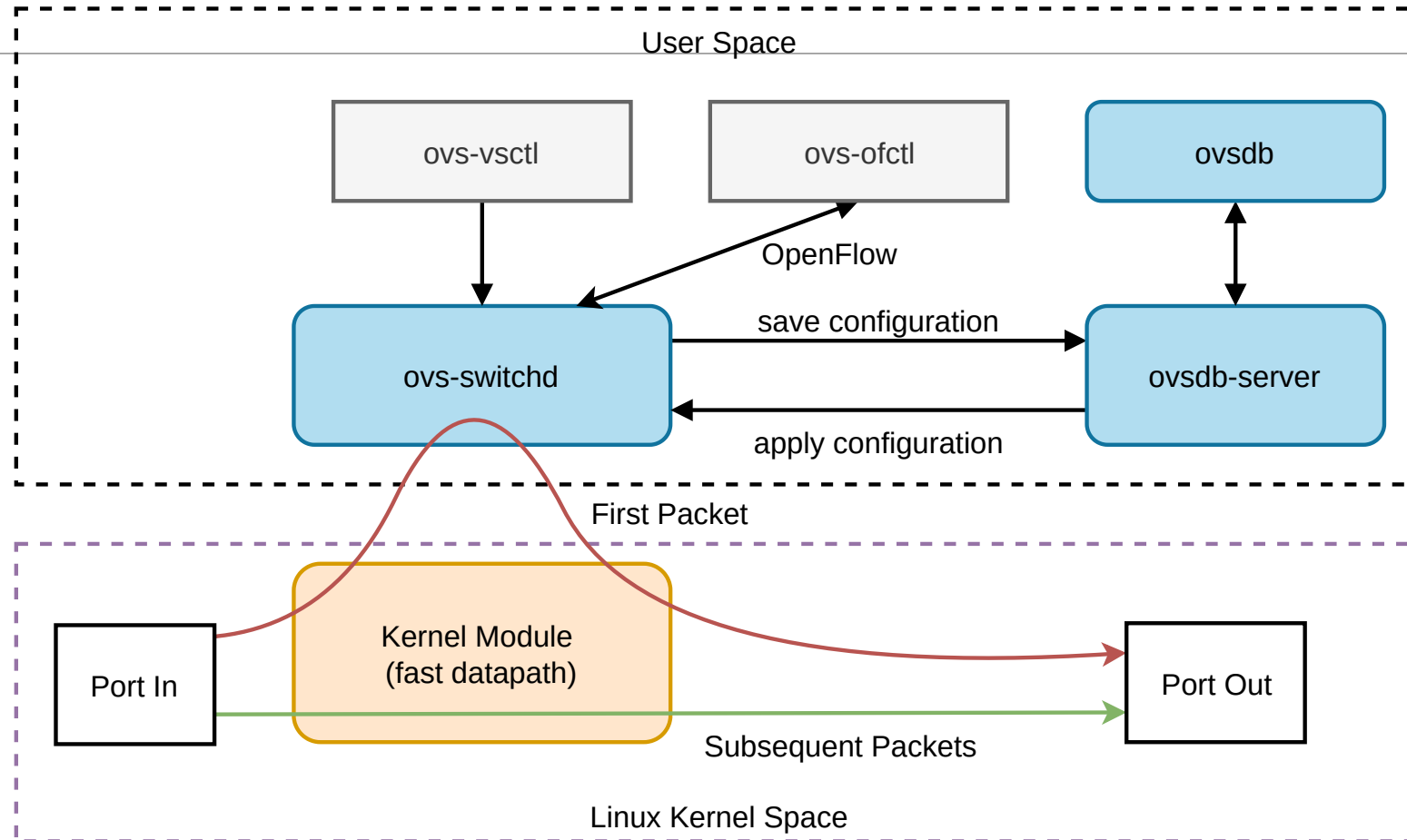
Mininet Overview



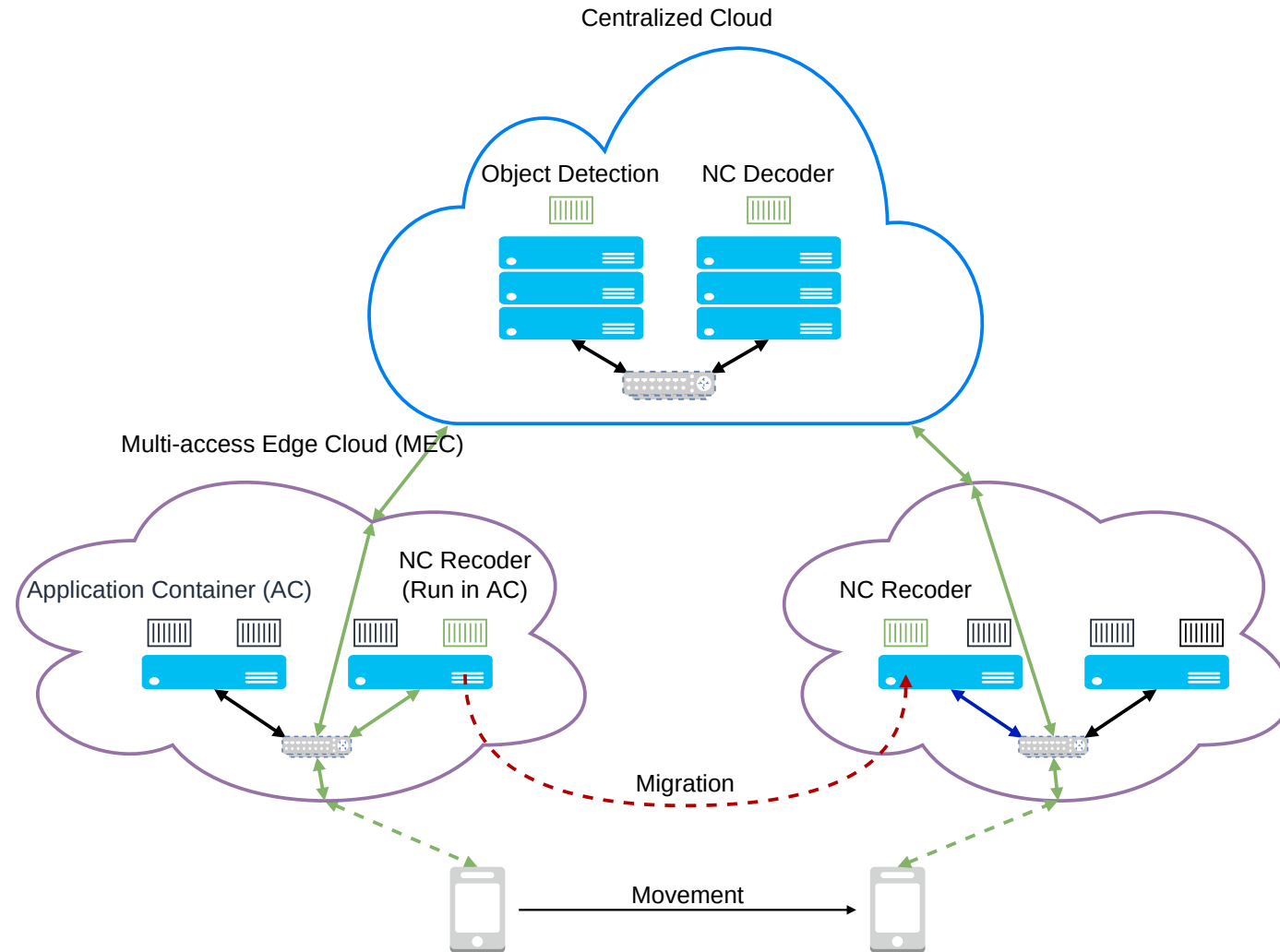
Demystifying Mininet Configurable Data Plane



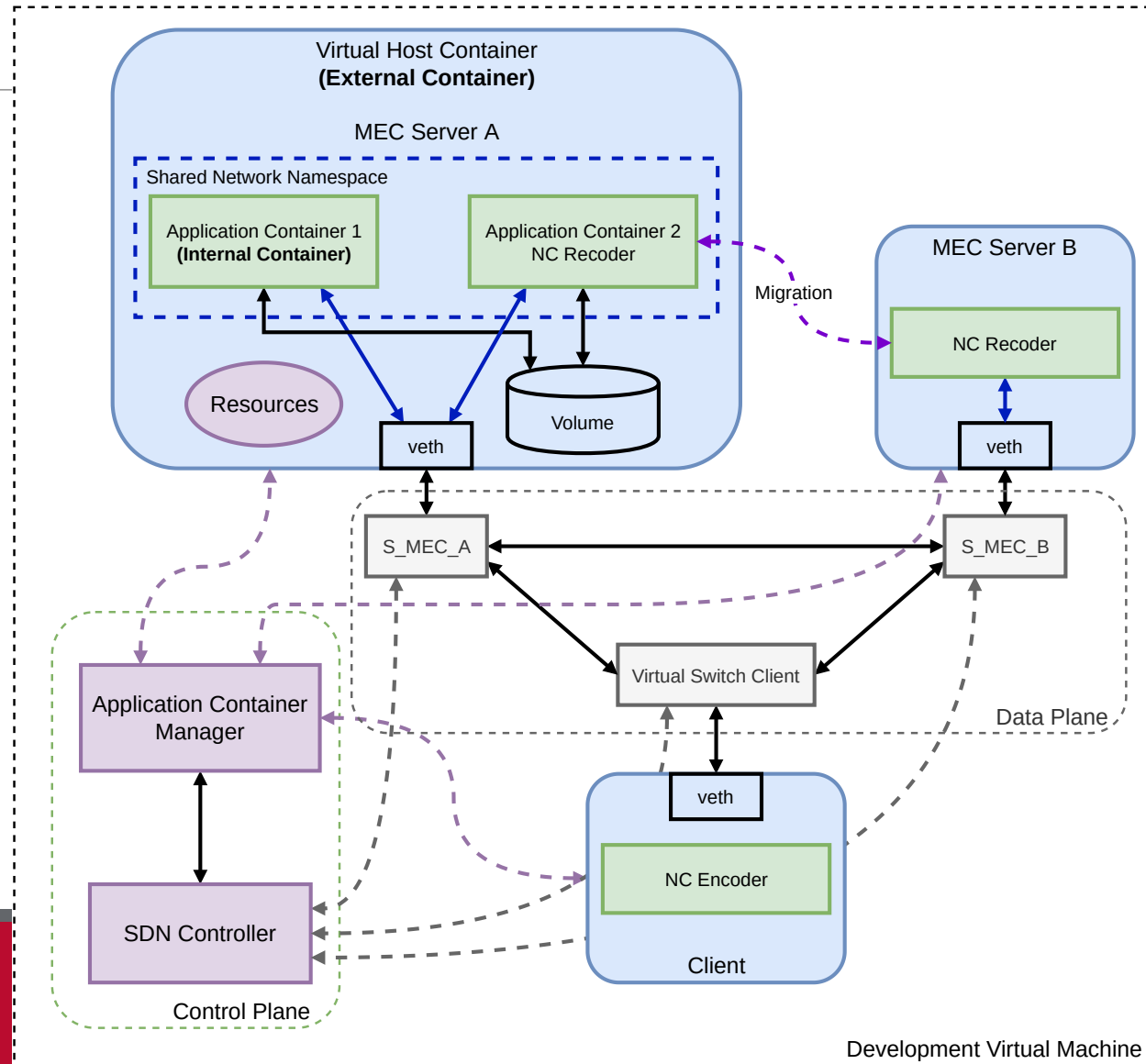
Open vSwitch Architecture



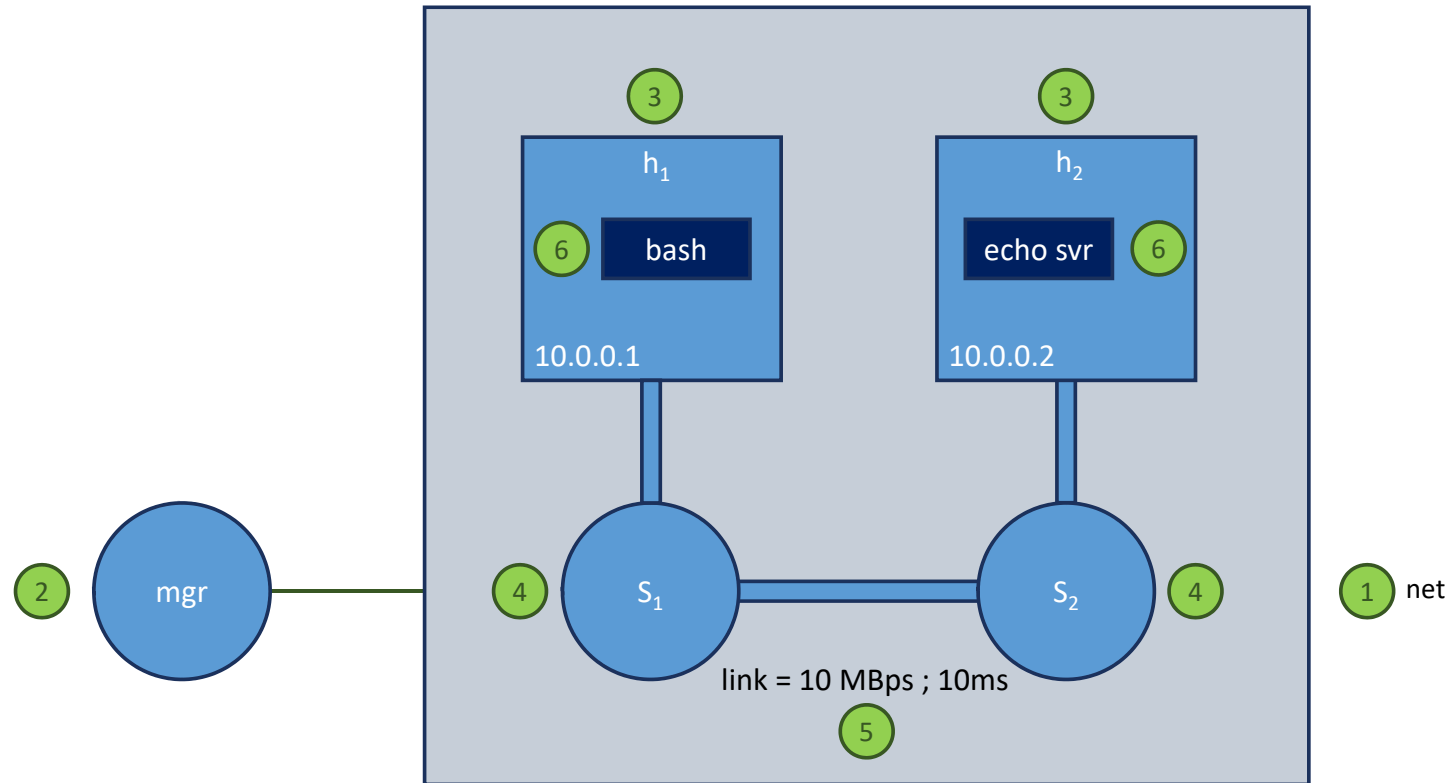
Typical Deployment of a Network Coding Application in a Multi-Cloud Scenario



ComNetsEmu implementation



Echo Server



ComNetsEmu

Download it from the online repository!

<https://git.comnets.net/public-repo/comnetsemu>